

A FREQUENCY DOUBLER CIRCUIT WITH TRIMMABLE CURRENT CONTROL

ABSTRACT OF THE DISCLOSURE

A frequency doubler circuit with trimmable current control. In one
5 embodiment, the present invention provides a circuit comprising an oscillator
with a current source and a frequency doubler circuit coupled to the current
source. In one embodiment, the current source is for generating a reference
current. In one embodiment, the frequency doubler circuit is operable to
10 receive a first frequency signal for generating a second frequency signal and
also receiving the reference current. The frequency doubler circuit, using the
reference current, operates to compensate for process variation of capacitance
of the frequency doubler circuit and uses the reference current to maintain a
known duty cycle. In one embodiment, the circuit further comprises a control
15 loop for generating an output current, wherein the output current, operating in
conjunction with the reference current, operates to compensate for process
variation of capacitance of the frequency doubler circuit and uses the reference
current to maintain a known duty cycle. In one embodiment, the current source
comprises a trimmable current control.